

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023551**Date Inspected:** 09-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China**CWI Name:** Mr. LIU HUA JIE**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Shielded Metal Arc Welding of Base Metal Repair weld (temporary attachment removal area) near the bottom plate to bottom plate transverse splice weld joint located on west side of 13AE at bike path side. The welder is identified as 040270. ZPMC QC Mr. WANG LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-2G (2F)-FCM-Repair-1. The weld repair report number is named as CWR-2861.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the deck plate to deck plate transverse splice weld joint located on 13AE+13BE. The weld is designated as OBE13-002. The welder is identified as 044772, 068764, 043661, 067571, 037997 & 067656. ZPMC QC Mr.

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WANG LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2214-B-U2-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the deck plate to deck panel diaphragm weld joint located on 13AE at bike path side, Panel Point (PP-119). The weld is designated as SEG3007J-013. The welder is identified as 200113. ZPMC QC Mr. LIU HUA JIE was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-20872.

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) member identified as side plate T- stiffener located on 13AE at bike path side. Distortion appeared to be caused by mishandling of the material. ZPMC Quality Control (QC) inspector identified as Mr. WANG LI YANG was present to monitor the heat straightening process. The heat straightening appears to comply with Heat Straightening Report number is HSR (B) 1-10348.

2. NDT:

Magnetic Particle Testing (MT):

MT carried out for the ZPMC submitted Notification No 09073.

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area that has been previously tested and accepted by ZPMC MT technicians. This QA Inspector generated a TL-6028 MT report on this date. The members are identified as fillet & butt weld joint located on 12AE & 12CW. The weld designation numbers is as follows:

1. SP3003-001-092,
2. DP3065-001-026,
3. DP3067-001-026,
4. SEG3006S-023, 024,
5. SEG3006T-023, 024.

Ultrasonic Testing (UT):

UT carried out for the ZPMC submitted Notification No 09076.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10 % of CJP welds that has been previously tested and accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The members are identified as butt joint between floor beam to stiffeners weld joint located on 12CW at both counter weight side & cross beam side. This QA inspector generated a UT (TL-6027) report for this date. Weld identification numbers were

1. SEG3006B-146, 149, 150, 154, 159, 155, 160,
2. SEG3006C-162, 132, 133, 137, 138, 142, 143,

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3. SEG3006D-147, 148, 152, 153,
4. SEG3006E-156, 157, 161, 162,
5. SEG3006F-140, 141,
6. SEG3006G-164, 165.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Pillai,Santosh	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer
